



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/702,090

11/06/2003

Kazuyuki Kudo

1767-120

8213

23117

7590

05/16/2006

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

PARRIES, DRUM

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/702,090

Applicant(s)

KUDO ET AL.

Examiner

Dru M. Parries

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11-6-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Gale et al. (6,930,404). Gale teaches a first and second electric power supply circuit (14 and 20; Fig. 1). He also teaches a controlling device (41) which controls operations of both power supply circuits so as to correlate to each other. He also teaches keeping each power supply circuit voltage at a predetermined value (42 Volts). He also teaches each of the power supply circuits functioning as part of audio equipment. (Col. 2, lines 36-49)
3. Claims 1 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Hazelton et al. (6,720,862). Hazelton teaches a first and second power supply lines (line to 30 and 32) and a controller (10) for controlling the operation of the supply lines. He also teaches the first supply line (line to 32) being a backup line in a vehicle and the second line (line to 30) being an accessory line in the vehicle both being supplied from one battery (12).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsudaira et al. (6,177,739) and Shirai et al. (6,328,394). Matsudaira teaches a first and second power supply circuit (lines with 622 and 623) for supplying power to an image forming apparatus and a controller (66) for controlling their operation at approximately the same voltage. He also teaches each supply circuit having a DC-DC converter (622 and 623). Matsudaira fails to teach turning on and off the two supply circuits depending on the state of the second circuit. Shirai teaches an image forming apparatus with dual supplies. He teaches a detection device (222) detecting the on-off state of the second supply line (power to image recording apparatus) and in turn detecting the necessity of providing power on the first and second supply lines. He goes on to teach turning on both supply circuits when the second supply line is detected to have on-status and turning both circuits off when the second supply line is detected to have off-status. (Col. 8, lines 17-59; Col. 9, lines 4-20). It would have been obvious to one of ordinary skill in the art at the time of the invention to implement this method of turning on/off the supply circuits into Matsudaira's invention because operability is improved.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsudaira et al. (6,177,739) and Shirai et al. (6,328,394) as applied to claims 1 and 3 above, and further in view of Giannopoulos (6,504,267). Matsudaira and Shirai teach a dual power supply circuit as described above. Neither of these references teach a backflow-inhibiting diode. Giannopoulos teaches a backflow-inhibiting diode (above RS₂) on a second supply line (Fig. 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to implement this

Art Unit: 2836

diode onto the second supply line of Matsudaira's invention so that no stray current will flow and therefore prevent any misinterpretation of the off-status on the second supply line.

Conclusion

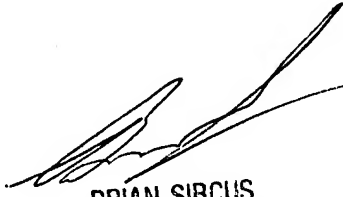
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on Monday -Thursday from 8:00am to 5:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on 571-272-2800 x 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

5-2-2006


BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER